



ASSET MANAGEMENT STRATEGY

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1 Executive Summary

This asset management strategy is prepared to assist Shoalhaven Water improve the way it delivers services from infrastructure including, water supply, wastewater services, communications facilities & Shoalhaven Water managed buildings. These infrastructure assets have a replacement value more than \$1.35B (30/06/2017). The strategy is designed to guide Shoalhaven Water as it seeks to align with the principals and expectations of the ISO 55000 series of documents. To achieve this Shoalhaven Water also utilises the International Infrastructure Management Manual (IIMM) to provide guidance on how to apply the requirements as specified in the ISO documentation.

The asset management strategy is to enable Shoalhaven Water to:

- Demonstrate how its asset portfolio will meet the service delivery needs of its community into the future
- Achieve the requirements of its asset management policies
- Ensure the integration of asset management with its long term Strategic Business Plan¹

Adopting this asset management strategy will assist Shoalhaven Water in meeting the requirements of national sustainability frameworks, State Integrated Planning and Reporting (IPR) Guidelines and Best Practice Management and in providing services required by the community in a financially sustainable manner.

The asset management strategy is prepared following a review of the Shoalhaven Water service delivery practices, financial sustainability indicators, asset management maturity and fit with Shoalhaven Water vision for the future outlined in the Shoalhaven City Community Strategic Plan. The strategy outlines an asset management improvement plan detailing a program of tasks to be completed and resources required to bring Shoalhaven Water to an 'intermediate level' of asset maturity and competence.

1.1 Strategy Outlook

1. The organisation can maintain current service levels for the next five years at current funding levels. Further investment will be required in the future to maintain the condition of assets, and operational expenses increase with the aged infrastructure. In addition, the risk to the organisation will increase and reliability reduce with aged infrastructure.
2. The organisation is currently able to fund current infrastructure life cycle cost at current levels of service and available revenue however increases in investment will be required as the assets age and performance/serviceability decreases due to the age of the assets.
3. The organisation's current asset management maturity is above 'core' level however, investment is needed to improve information management, lifecycle management, service management & accountability and direction, as the goal is to achieve intermediate level maturity. The main area of improvement is in the integration area, which should be addressed with the current project to upgrade Council IT systems to a new integrated system. This project is expected to commence in mid 2018.

Shoalhaven Water seeks to manage the water supply, wastewater and communications assets in a manner that meets the required level of service in the most cost effective manner for present and future consumers. The key documents are set out in figure 1-1, shown on page 5.

¹ LGPMC, 2009, Framework 2 Asset Planning and Management, p 4.

1.2 Asset Management Strategies

For Shoalhaven Water to achieve the strategic objectives identified in the Asset Management Policy the strategies and outcomes in the table below need to be actioned to advance Shoalhaven Water's asset management.

No	Strategy	Desired Outcome
1	Move from Annual Budgeting to Long Term Financial Planning	The long term implications of Shoalhaven Water services are considered in annual budget deliberations.
2	Develop and annually review Asset Management Plans covering at least 20 years for all major asset classes (80% of asset value).	Identification of services needed by the community and required funding to optimise 'whole of life' costs.
3	Develop Long Term Financial Plan covering 10 years incorporating asset management plan expenditure projections with a sustainable funding position outcome.	Sustainable funding model to provide Shoalhaven Water services.
4	Incorporate Year 1 of Long Term Financial Plan revenue and expenditure projections into annual budgets.	Long term financial planning drives budget deliberations.
5	Review and update asset management plans and long term financial plans after adoption of annual budgets. Communicate any consequence of funding decisions on service levels and service risks.	Shoalhaven Water and the community are aware of changes to service levels and costs arising from budget decisions.
6	Report Shoalhaven Water financial position at Fair Value in accordance with Australian Accounting Standards, financial sustainability and performance against strategic objectives in Annual Reports.	Financial sustainability information is available for Shoalhaven Water and the community.
7	Ensure Shoalhaven Water decisions are made from accurate and current information in asset management system, on service level performance and costs, and 'whole of life' costs.	Improved decision-making and greater value for money.
8	Report on Shoalhaven Water resources and operational capability to deliver the services needed by the community in the Annual Report.	Services delivery is matched to available resources and operational capabilities.
9	Ensure responsibilities for asset management are identified and incorporated into staff	Responsibility for asset management is

	position descriptions.	defined.
10	Ongoing review and development of the Improvement Plan to realise 'Intermediate' maturity for the financial and asset management competencies within 2 years.	Improved financial and asset management capacity within Shoalhaven Water.
11	Report six monthly to Shoalhaven Water Asset Management Steering Committee on development and implementation of Asset Management Policy, Strategy, AM Plans, Improvement Plan and Long Term Financial Plans.	Oversight of resource allocation and performance.

1.3 Asset Management Improvement Plan

In September 2012 Shoalhaven Water commissioned a report into its Asset Management Capabilities. This report was further reviewed in 2014 and a final improvement plan developed. The improvements identified in that plan are shown in section 12 of the Shoalhaven Water's Asset Management Plans. These improvement plans have been the drivers for development of the Asset Management System and are KPI's for staff within the Asset Unit of Shoalhaven Water. As part of the development of this Strategy the program of tasks and resources required to achieve a minimum 'core' asset management maturity was reviewed again to as part of the development of the asset management strategy. A total of 33 action items were identified to improve Shoalhaven Water's AM program, and as at March 2017, 4 are complete and 19 are in progress.

The tasks and program identified in the 2014 Asset Management Capability Improvement Plan are detailed in Table 4.6

2 Introduction

Assets deliver important services to communities. A key issue facing local governments throughout Australia is the management of ageing assets in need of renewal and replacement.

Infrastructure assets such as communications infrastructure, water and sewerage present particular challenges as their condition and longevity can be difficult to determine. Financing needs can be large, requiring planning for large peaks and troughs in expenditure for renewing and replacing such assets. The demand for new and improved services adds to the planning and financing complexity.²

The creation of new assets also presents challenges in funding the ongoing operating and replacement costs necessary to provide the needed service over the assets' full life cycle.³

The national frameworks on asset planning and management and financial planning and reporting endorsed by the Local Government and Planning Ministers' Council (LGPMC) require Shoalhaven Council to adopt a longer-term approach to service delivery and funding comprising:

- A strategic longer-term plan covering, as a minimum, the term of office of the Councillors and:
 - bringing together asset management and long term financial plans,
 - demonstrating how Shoalhaven Water intends to resource the plan, and
 - consulting with communities on the plan
- An annual budget showing the connection to the strategic objectives, and
- An annual report with:
 - an explanation to the community on variations between the budget and actual results
 - any impact of such variances on the strategic longer-term plan
 - a report of operations with review on the performance of the Shoalhaven Water against strategic objectives.⁴

Framework 2 *Asset Planning and Management* has seven elements to assist in highlighting key management issues, promote prudent, transparent and accountable management of local government assets and introduce a strategic approach to meet current and emerging challenges.

- Asset management policy,
- Strategy and planning,
 - Asset Management Strategy,
 - Asset Management Plan,
- Governance and management arrangements,
- Defining levels of service,
- Data and systems,
- Skills and processes, and
- Evaluation.⁵

The asset management strategy is to enable Shoalhaven Water to show:

- how its asset portfolio will meet the service delivery needs of its community into the future
- to enable Shoalhaven Water asset management policies to be achieved
- to ensure the integration of Shoalhaven Water asset management with its long term strategic plan⁶

² LGPMC, 2009, Framework 2 Asset Planning and Management, p 2.

³ LGPMC, 2009, Framework 3 Financial Planning and Reporting, pp 2-3.

⁴ LGPMC, 2009, Framework 3 Financial Planning and Reporting, pp 4-5.

⁵ LGPMC, 2009, Framework 2 *Asset Planning and Management*, p 4.

⁶ LGPMC, 2009, Framework 2 *Asset Planning and Management*, p 4.

The goal of asset management is to ensure that services are provided:

- in the most cost-effective manner,
- through the creation, acquisition, maintenance, operation, rehabilitation and disposal of assets,
- for present and future consumers.

The objective of the Asset Management Strategy is to establish a framework to guide the planning, construction, maintenance and operation of the infrastructure essential for Shoalhaven Water to provide services to the community over the whole of life cycle of the assets to achieve the agreed Level Of Service at an affordable cost. The objectives which have been adopted by Shoalhaven Water as the drivers for asset management within the organisation are -

- AM structure, roles and responsibility to be clearly defined within Shoalhaven Water and management agree to provision of resources required to deliver AM at all levels of the organisation
- Decision making is outcome based and based on reliable up to date information.
- Stakeholder consultation to be undertaken in accordance with Shoalhaven Water's Customer Service Plan, Council Policies and SW Asset Management Communications Plan and services to be delivery to the standard agreed with stakeholders.
- Risk management to be in accordance with Councils risk management plans and ISO 9001
- Asset financial management & reporting to be in accordance with AASB guidelines and SCC Policies
- AM reporting to be undertaken in accordance with Council Policy and AASB guidelines
- Asset Management systems and processes aimed at statutory compliance
- Preparation of up to date AM plans for all classes of assets under control of SW.
- Continuous review and improvement of AM processes and the ongoing review and implementation of improvement plans for AM system, data and processes.

2.1 Legislative reform

As the Water Utility provider for the community, Shoalhaven Water operates as a Group within Shoalhaven City Council. Council is required to comply with the Local Government Integrated Planning & Reporting Guidelines. This includes a requirement to prepare;

- Community Strategic Plan (CSP),
- Resourcing Strategy,
- 4 year Delivery Program,
- Annual Operational Plan, and
- Annual Report

Local Government Act, Amendment Act and Amendment Regulation

The key legal and regulatory requirements for asset management are set out in the:

- Local Government Act 1993,
- Local Government Amendment (Planning and Reporting) Act 2009,
- Local Government (General) Amendment (Planning and Reporting) Regulation 2010.

The following key documents are used to guide asset management planning activities.

Integrated Planning and Reporting (IPR) Guidelines

The Integrated Planning and Reporting (IPR) Guidelines for local government in NSW list all the mandatory requirements from the Local Government Act and the Local Government Amendment Regulation 2013. Shoalhaven Water must comply with the Essential Elements set out in the IPR Guidelines when planning and reporting to comply with the Local Government Act.

Guidelines for Best Practice Management of Water Supply and Sewerage (August 2007)

Pursuant to section 409(6) of the Local Government Act 1993, the guidelines identify six criteria for best practice management of water supply and sewerage and set out the outcomes local government Local Water Utilities (LWUs) need to achieve in order to be eligible for payment of a dividend from the surplus of their water supply or sewerage businesses.

The six criteria are –

1. Strategic Business Planning
2. Pricing (including Developer Charges, Liquid Trade Waste Policy and Approvals)
3. Water Conservation
4. Drought Management
5. Performance Reporting
6. Integrated Water Cycle Management

National Water Initiative (NWI)

The Australian Government established the National Water Commission (NWC) to implement the National Water Initiative (NWI). Whilst the Commission is no longer operating the NWI provided a national water performance-reporting framework that requires annual reporting by Shoalhaven Water on a number of key indicators and subsequent benchmarking with the results tabled in a National Performance Report. This function is managed nationally through the Bureau of Meteorology. Shoalhaven Water is also required to review and provide an action plan addressing any areas of under-performance identified in the NSW State Government Triple Bottom Line Summary each year.

Other Acts and Regulations

Table 2-1 Acts, Regulations, Guidelines and Standards

Type	Name
Acts and Regulations	Independent Pricing and Regulatory Tribunal (IPART) Act 1992
	Dams Safety Act
	Environmental Planning and Assessment Act 1979
	Catchment Management Authorities Act 2003
	Soil Conservation Act 1938
	Fluoridation of Public Water Supplies Act 1957
	Water Management Act 2000 & (General) Regulations 2011
	Protection of the Environment Operations Act 1997
	Water Industry Competition Act 2006
	Work Health & Safety Act 2011
	Water NSW Act 2014
	Trade Practices Act 1974
	Local Government Act 1993 & (General) Regulations 2005
	Public Health Act 2010 and Public Health Regulation 2012
Guidelines	Australian Drinking Water Guidelines 2011
	Developer Charges Guidelines for Water Supply, Sewerage & Stormwater 2016
	Section 64 Determination of Equivalent Tenement Guidelines
	National Health & Medical Research Shoalhaven Water (NHMRC) Guidelines (2004)
Standards	Australian Standard 4360: Risk Management 2008
	Australian Accounting Standards

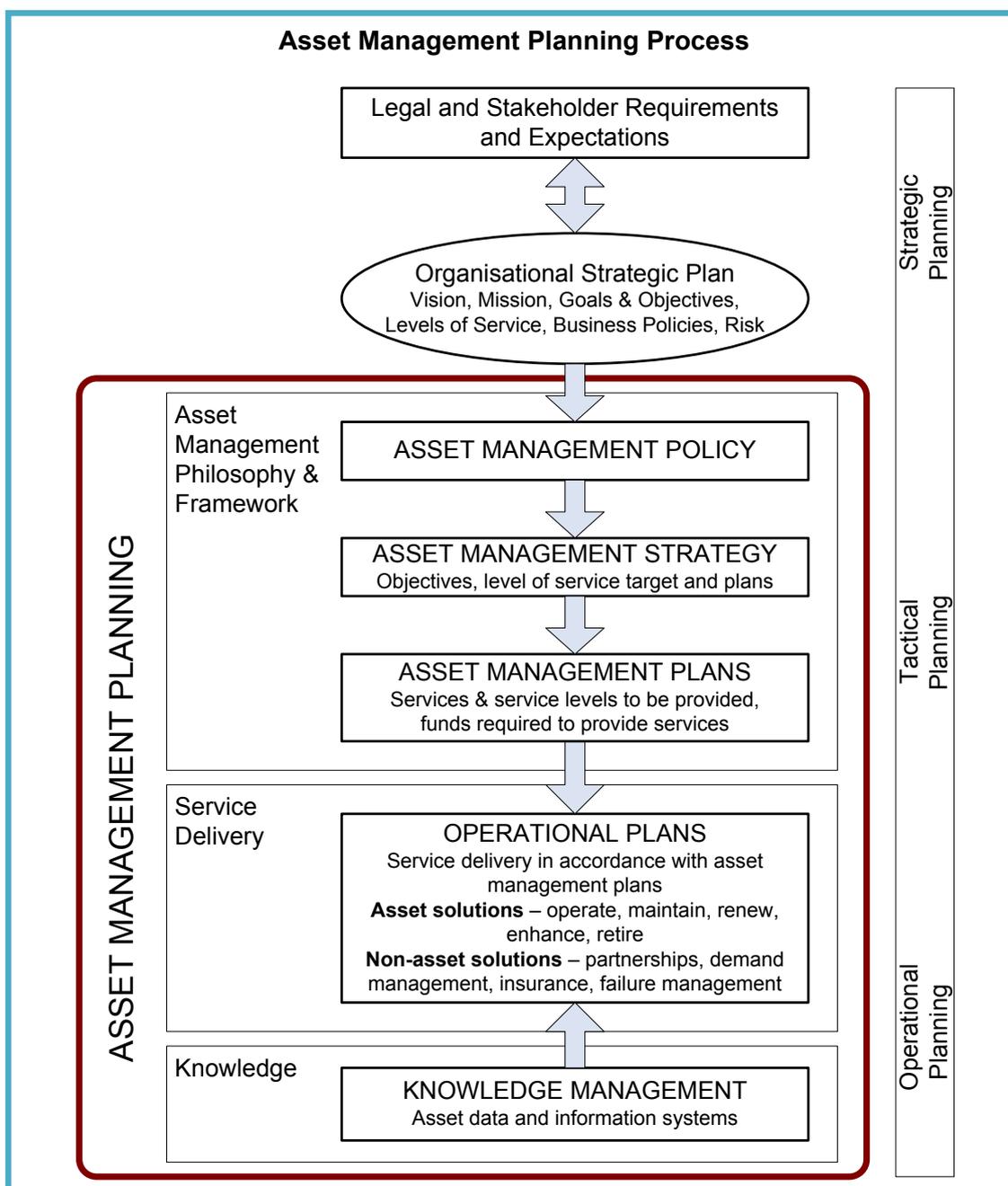
For a full description of the Acts and Regulations, refer to the Shoalhaven Water Strategic Business Plan 2015-2016.

2.2 Asset Management Planning Process

Asset management planning is a comprehensive process to ensure that assets are managed and maintained in a way that enables affordable services from infrastructure to be provided in an economically optimal way. In turn, affordable service levels can only be determined by assessing Shoalhaven Water's financial sustainability under scenarios with different proposed service levels.

Asset management planning commences with defining stakeholder and legal requirements and needs, incorporating these needs into the organisation's strategic plan, developing an asset management policy, strategy, asset management plan and operational plans, linked to a long-term financial plan with a funding plan.⁷

Figure 2-1 Asset Management Planning Process



⁷ IPWEA, 2009, AIFMG, Quick Guide, Sec 4, p 5.

3 What Assets do we have?

Shoalhaven Water uses infrastructure assets to provide services to the community. The range of infrastructure assets and the services provided are shown in Table 3-1.

Table 3-1 Assets used for Providing Services

Asset Class	Description	Quantity (17/18)	Services Provided
Water Supply	Water Treatment Plants	4	Provision of potable water for residential, commercial and industrial customers.
	Water reservoirs	43	
	Water Pump Station	25	
	Dams	5	
	Water Mains	+1550km+10,900	
	Hydrants	+7350	
	Valves		
Wastewater Service	Treatment Plants	14	Collection, treatment & disposal of wastewater for residential, commercial and Industrial premises Provision of Reclaimed effluent
	Pump Stations	224	
	Gravity Mains	+1000km	
	Rising Mains	+197km	
	Pressure Mains	+31km	
	Pressure Sewer Units	+1670	
	Valves	+2000	
REMS Infrastructure	71km		
Communications Facilities	Towers	16	Provision of Communications links and services to Shoalhaven Water, Council and external users.
	Buildings	14	
	Poles		
	Structures		

3.1 Key Stakeholders

The key stakeholders of Shoalhaven Water's assets are those groups of people who have a vested interest in the responsible management of the assets. The following list identifies key stakeholders and a description of their role in the management of corporate assets:

Councillors

This stakeholder group includes Councillors and the Mayor. They are primarily responsible to ensure that their decisions represent and reflect the needs of the wider community as expressed through community surveys and community engagement.

Council Staff

Council staff play a role in managing assets to ensure that they provide a level of service that meets the needs of residents, businesses and visitors to the area. Council staff implement the components identified in the asset management plans. In most cases Council staff are also the core users of the assets. Often the use of these assets is for the purpose of delivering services to the community.

Residents and Local Businesses

Residents and local businesses are the core users of water supply, wastewater and communication assets owned and operated by Shoalhaven Water. Their needs, and aspirations are conveyed to Council through community engagement, and will be reflected in the levels of service.

Visitors

Visitors are also important users of assets within the Shoalhaven area with the population doubling over peak periods. Visitors' wants, needs and expectations drive the development in areas of the highest usage and commercial areas.

3.2 Risk

Risk is defined as the chance of an event occurring which may have an impact either directly on, or to the operating environment of, an organisation. Such an event can have a financial and/or an operational consequence.

Shoalhaven Water recognises risk management as an integral part of sound corporate practice. Risks can arise out of uncertainty, and whilst it is acknowledged that it is not possible to have a totally risk-free environment, it is possible to manage risk by avoiding, reducing, transferring or accepting risks. The overall objectives of the risk management approach are to:

- Outline the process by which the Organisation will manage risk associated with its assets
- Identify operational and organisational risks
- Evaluate identifiable risks to prioritise and formulate treatment solutions over a corresponding timeframe
- Allocate responsibility for managing identified risks to specific staff

Council has integrated the principles of risk management into the organisational decision-making process via corporate risk register which align with the International Standard for Risk Management Standards (ISO 31000:2009).

3.3 Critical Assets & Critical Customers

In 2012-2013 Shoalhaven Water developed a criticality assessment framework and general management strategies for critical assets, and subsequently utilised the framework to identify critical assets. A series of workshops were conducted involving relevant staff across the organisation to agree upon the criticality criteria for each asset type. Analysis was carried out to identify which assets are critical and datasets were produced for use in management systems planning.

3.3.1 The definitions of critical assets

Asset criticality is defined in terms of the consequences of asset failure. Three criticality grades have been defined as follows:

Extremely Critical: Assets where the consequences of failure are unacceptable and must therefore be reduced.

Critical: Assets where the consequences of failure are sufficiently serious that it is desirable to avoid the failure of these assets to the extent that it is practicable to do so.

Non-critical: Assets where the consequences of failure are not significant enough that Shoalhaven Water should actively commit resources to preventing their failure.

3.3.2 Critical asset identification criteria

Assets are potentially critical if their failure would have significant detrimental impacts on service delivery or compliance, on the local community, or on the financial performance of Shoalhaven Water.

The assets considered for the criticality test included in the list below -

Generally, the following attributes discussed in this section apply to potentially critical assets. Assets which fall under the categories explained below were assessed based on the significance of the consequences of asset failure which include both operational and social impacts.

Operational impacts of the asset failure are the effects on Shoalhaven Water's ability to operate, measured by the cost and time required to repair the asset, and the effect on Shoalhaven Water's ability to maintain compliance with legislative requirements.

Social impacts of the asset failure are the effects on customers and the community, measured by the severity of the effects, their magnitude or scale, and their duration.

Criteria	Description
Assets serving large populations	The failure of assets serving large populations may result in a critical disruption of service, or may cause significant health risk. They are also typically larger, more expensive to repair and take longer to repair, and can cause significant damage or disruption at the point of failure (e.g. flooding). The population and pipe size thresholds for critical water assets are ≥ 500 and $\geq 300\text{mm}$, respectively. These thresholds are indicative based on previous experience with comparable water service providers.
Assets serving extremely critical customers	Extremely critical customers are those for which the disruption of water supply may present a serious threat to human life (e.g. notified dialysis patients, hospitals and surgical facilities). Assets serving extremely critical customers shall be considered potentially critical if failure of the asset would impact service delivery to the customer.
Assets likely to disrupt critical infrastructure or services	Critical infrastructure or services include heavily trafficked roads or rail lines, access to emergency services (such as hospitals, fire stations, police station, or ambulance stations), and access to key facilities (such as airports and ports). The failure of assets in these locations can result in significant disruption to the local community or other infrastructure services. Disruption may occur as a direct result of damage caused by failure of the water asset.
Assets required for compliance with legislative requirements	Some levels of service and monitoring requirements are mandated by legislation. Failure of assets which provide those levels of service or monitoring functions would cause Shoalhaven Water to be non-compliant with legislative requirements. Water assets which fall under this category include fire hydrants, turbidity or residual monitoring equipment, and SCADA or Telemetry systems.
Critical Valves (Water Trunk and Distribution Networks)	<p>Since water valves on trunk and distribution networks provide a range of critical functions within the water supply network, they should be considered critical although they may not necessarily qualify as critical based on the previously presented criteria. Valves which should be considered critical include:</p> <p>Valves which operate In emergencies – fire hydrants, zone valves, and isolation valves on reservoir inlets and outlets, connections to extremely critical customers, and on critical water mains.</p> <p>Valves which operate continuously - pressure reducing valves (PRVs) / pressure sustaining valves (PSVs) / water hammer arresting valves (WHAVs), non-return valves, and backflow prevention devices.</p>

4 Shoalhaven Water's Assets and their Management

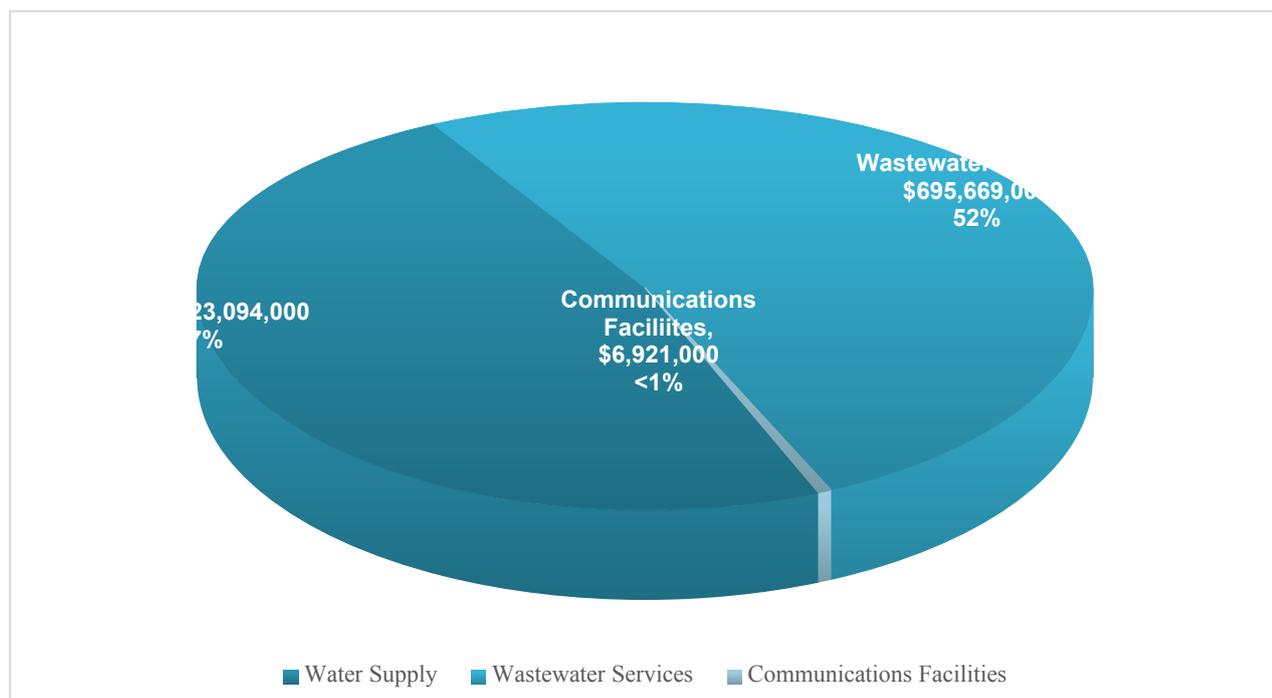
4.1 State of the Assets

The financial status of the organisation's assets is shown in Table 4-1.

Table 4-1 Financial Status of the Assets (30/6/2017)

Asset Class	Replacement Cost (\$000)	Residual Value (\$000)	Depreciable Amount (\$000)	Depreciated Replacement Cost (\$000)	Depreciation Expense (\$000)
Water Supply	623,094,	0	623,094	335,829,	7,902,
Wastewater Service	695,669,	0	695,669	431,107	10,196
Communications Facilities	6,921,	0	6,921	3,145,	139,
Total	\$ 1,325,685,	0	\$ 1,325,685,	\$770,081,	\$18,361,697

Figure 4-1 Asset Replacement Values

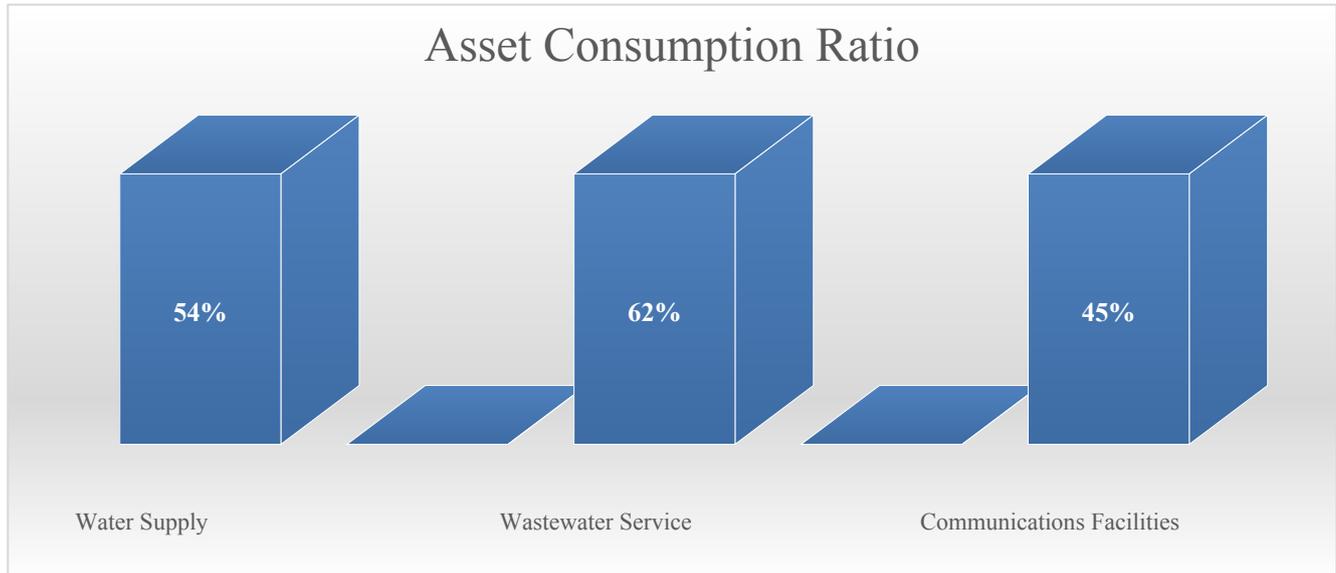


The asset consumption ratios shown below is the average proportion of 'as new' condition left in assets. It is derived from the depreciated replacement cost less residual value divided by the depreciated amount.

Figure 4-2 Asset Consumption Ratio, indicates that communications facilities are the least depreciated asset class mainly due to the relative age of this class. Water supply assets and wastewater assets classes are over the 50% mark with wastewater only 38% as new when compared to the depreciation of that asset class. The consumption ratio for wastewater will reduce slightly with the current projects to replace aging wastewater treatment plants at Bomaderry and Nowra, which represents a \$100M investment. Whilst most major plants within the water and wastewater areas are

relatively new the pipe infrastructure is generally older and represents 48% of the wastewater asset value and 54% of the water supply asset value. Whilst these are generally long-life assets, ongoing investment in the pipe rehabilitation will need to be undertaken as pipes move closer to the end of their useful life.

Figure 4-2 Asset Consumption Ratio



The condition of Shoalhaven Water assets is shown in Figure 4-3 Asset Condition Profile Wastewater, Figure 4-4 Asset Condition Profile Water Supply and Figure 4-5 Asset Condition Profile Communications Facilities.

Figure 4-3 Asset Condition Profile Wastewater

Wastewater Assets	Averaged Condition Rating
Wastewater Treatment Plants	2
Sewer Pump Stations	2
Gravity Sewers	2
Rising Mains	2
Low Pressure Sewers	1
REMS Pipes	2
REMS Nodes	2
Manholes	2
Pressure Pumps	1
Pressure Pump Units	1
Buildings	2



Figure 4-4 Asset Condition Profile Water Supply

Water Supply Asset Group	Averaged Condition Rating
Water Storage Dams	2
Treatment Plants	2
Service Reservoirs	2
Pipe System	2
Pump Stations	2
Buildings	2

Key:	Highly Reliable	Reliable	Uncertain	Very Uncertain	Unknown
	Highly Reliable	Reliable	Uncertain	Very Uncertain	Unknown

Figure 4-5 Asset Condition Profile Communications Facilities

Communications Facilities	Averaged Condition Rating
Towers	2
Buildings	2
Associated Infrastructure	2

Key:	Highly Reliable	Reliable	Uncertain	Very Uncertain	Unknown
	Highly Reliable	Reliable	Uncertain	Very Uncertain	Unknown

Council is required to include the condition of its water & waste water assets as part of Special Schedule 7 in its annual financial statements. The asset condition for each asset category (water supply is one asset category) is defined using a “key” as per the NSW Local Government Asset Accounting Manual. This “key” is as follows:

Table 4-2 Infrastructure Asset Condition Assessment “Key” (SCC Annual Financial Statements 30 June 2014)

1	Excellent – No work required (normal maintenance)
2	Good – Only minor maintenance work required
3	Average – Maintenance work required
4	Poor – Renewal required
5	Very Poor – Urgent renewal/upgrading required

The water supply information in the 2016/17 Special Schedule 7 is as follows:

Asset Condition Reported in Annual Financial Statements
(SCC Annual Financial Statements 30 June 2017)

Asset Condition	Estimated cost to bring up to a satisfactory condition standard	Required Annual Maintenance (\$'000s)	Current annual maintenance (\$'000s)
Asset Condition 1 - 63%*	-	9,860	9,846
Asset Condition 2 - 40%*			

*Assets in Condition as a % of Written Down Value.

This information only provides an overall “snapshot” of the water supply asset condition.

Ninety percent of all above ground assets are inspected annually with damaged or leaking fitting replaced/rectified when identified. This gives a general rating of at least good condition (2).

Full details of the asset condition profile for water and wastewater treatment plants, pump stations, reservoirs and associated infrastructure is available in the asset condition reports from the 2017 Componentisation project.

Asset Condition Reported in Annual Financial Statements
(SCC Annual Financial Statements 30 June 2017)

Asset Condition	Estimated cost to bring up to a satisfactory condition standard	Required Annual Maintenance (\$'000s)	Current annual maintenance (\$'000s)
Asset Condition 1 - 25%*	-	13,950	15,061
Asset Condition 2 - 63%*			

*Assets in Condition as a % of Written Down Value.

This information only provides an overall “snapshot” of the wastewater asset condition.

Shoalhaven Water has undertaken condition assessment of assets as part of a 5 year relining program. All relined sewers are now specified as condition 1 with assets inspected and cleaned but not relined as condition 2.

In 2017 Shoalhaven Water undertook to inspect and update existing data on all above ground non-pipe assets. From this project, condition was recorded and reported for future planning and budgeting. This information will then be used to update the asset register and to priorities capital expenditure.

4.2 Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include operating and maintenance expenditure and asset consumption (depreciation expense). The life cycle cost for the services covered in this asset management plan is shown in table 4-3.

Table 4-3 Life Cycle Cost for Shoalhaven Water Services

Service	2016/17 Expenditure		2016 Depreciation	Life Cycle Cost (\$/yr)
	Operations \$	Maintenance \$	Depreciation Ex	
Water Supply	\$ 11,261,000	\$ 8,575,000	\$ 6,746,044	\$ 26,582,044
Wastewater Service	\$ 12,725,957	\$ 9,024,324	\$ 9,164,026	\$ 30,914,307
Communications Facilities	\$ 479,186	\$ 83,027	\$ 230,000	\$ 792,213
TOTAL	\$ 24,466,143	\$ 17,682,351	\$ 16,140,070	\$ 58,288,564

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes operating, maintenance and capital renewal expenditure in the previous year or preferably averaged over the past 3 years. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure at the start of the plan is shown in table 4-4 Life Cycle Expenditure for Shoalhaven Water Services below.

Table 4-4 Life Cycle Expenditure for Shoalhaven Water Services

Service	2016/17 Expenditure		Cap Renewal Exp	Life Cycle Exp (\$/yr)
	Operations	Maintenance	(\$/yr)	
Water Supply	\$ 11,261,000	\$ 8,575,000	\$5,336,000	\$25,172,000
Wastewater Service	\$ 12,725,957	\$ 9,024,324	\$4,850,000	\$26,600,281
Communications Facilities	\$ 479,186	\$ 83,027	\$ 378,466	\$ 940,679
All Services	\$ 24,466,143	\$ 17,682,351	\$10,564,466	\$52,712,960

(Water & Wastewater capital renewal figures averaged 3 years from SS7 financial reporting figures)

The life cycle costs and life cycle expenditure comparison highlight any difference between present outlays and the average cost of providing the service over the long term, If the life cycle expenditure is less than the life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available, this will assist organisations in providing service to their communities in a financially sustainable manner. This is the purpose of the AM Plans and long term financial plan.

A shortfall between life cycle cost and life cycle expenditure gives an indication of the life cycle gap to be addressed in the asset management and long term financial plan.

The life cycle gap and life cycle indicator for services covered by this asset management plan is summarised in table 4-5.

Table 4-5 Life Cycle Indicators

Service	Life Cycle Cost (\$/yr)	Life Cycle Expenditure (\$/yr)	Life Cycle Gap * (\$/yr)	Life Cycle Indicator
Water Supply	\$26,582,044.00	\$25,172,000.00	-\$1,410,044.00	95%
Wastewater Service	\$30,914,307.00	\$26,600,281.00	-\$4,314,026.00	86%
Communications Facilities	\$792,213.00	\$940,679.00	\$148,466.00	119%
All Services	\$58,288,564.00	\$52,712,960.00	-\$5,575,604.00	

Note: * A life cycle gap is reported as a negative value.

Water supply assets are currently funded at 95% of the life cycle cost. Currently assets are in good condition with spare capacity and reaching the midpoint in their expected useful life therefore a small gap in life cycle expenditure is acceptable. Whilst they are considered mid-aged, operation and maintenance expenses are expected to increase as infrastructure ages therefore funding has been budgeted into the future to cover these expected cost increase. The current level of funding is considered adequate.

Wastewater service assets are currently funded at slightly higher than 86% of the life cycle cost. Shoalhaven Water is investing over \$100m in the next 3 years for the renewal of 2 wastewater treatment plants, which should reduce this deficit. Most other major plants have already been upgraded; however, significant investment is required in pipe assets to maintain the current level service into the future. As with water supply operations and maintenance, funding is incrementally increased in current budgets to allow for increase costs associated with aging infrastructure.

Communication Facilities have relatively low operations and maintenance expenses when compared to the replacement cost. Renewal of these assets is generally driven by capacity issues prior to the expiry of the asset so the + 100% life cycle indicator is needed to ensure renewal of these assets can be funded prior to the expected engineering useful life.

4.3 Future Demand

The objective of asset management is to create, operate, maintain, rehabilitate and replace assets at the required level of service for present and future customers in a cost effective and environmentally sustainable manner.

Shoalhaven Water has developed Water and Wastewater Servicing Strategies (June 2013) to understand the demand for water supply services over the period from 2011 – 2041 and to identify the capital works requirements to accommodate this. The future demand is expected to increase over the period to 2041 with the highest growth rate anticipated in the Nowra/Bomaderry area as demonstrated in Section 6.4 of the AMP's. The current 20-year financial plan allows for a capital works program of over \$600M which includes renewals, growth, asset enhancement and other works.

The Asset Management Strategy must therefore forecast the needs and demands of the community in the future and outline strategies to develop the assets to meet these needs. Factors which affect demand include population growth, social and technology changes.

4.4 Asset Management Structure

Shoalhaven Water recognises that Asset Management is a key function within the overall system of Council and therefore asset management is a key function within the

4.5 Asset Management Steering Committee

Shoalhaven Water has established an Asset Management Steering Committee (AMSC). The purpose of the AMSC is to ensure that there is an effective level of governance in place to drive the asset management improvements required within Shoalhaven Water. The AMSC has responsibility for the business enhancement project tasks associated with Shoalhaven Water's Asset Management Capability – Progress Update (Sep 2014). These improvement tasks are given in the Plan Improvement (Section 12) in this AMP. The AMSC is responsible for providing and endorsing project rationale and objectives, making investment decisions, defining and realising benefits, and monitoring risks, quality and timeliness.

The AMSC consists of the following permanent members:

- Director Shoalhaven Water (Executive Sponsor)
- Water Asset Planning & Development Manager (Project Sponsor)
- Unit Manager Projects & Assets

- Executive Assistant

The AMSC will invite other representatives to attend meetings as required, including but not limited to the Manager Operations, Manager Finance Division, Manager Customer Services and External Advisor (as required).

The AMSC meets monthly for approximately 1 – 2 hours, or at any point throughout the project where key information or a key decision is to be made and the timing of the next meeting would result in an untimely delay in the decision-making process.

A Terms of Reference document (April 2015) provides overarching purpose and focus to the AMSC.

4.6 Corporate Asset Management Team

A ‘whole of organisation’ approach to asset management can be developed with a corporate asset management team. The benefits of a corporate asset management team include:

- demonstrating corporate support for sustainable asset management,
- encouraging corporate buy-in and responsibility,
- coordinating strategic planning, information technology and asset management activities,
- promoting uniform asset management practices across the organisation,
- information sharing across IT hardware and software,
- pooling of corporate expertise
- championing of asset management process,
- wider accountability for achieving and reviewing sustainable asset management practices.

The role of the asset management team will evolve as the organisation maturity increases over several phases as per the table below.

Phase 1	<ul style="list-style-type: none"> • Strategy development and implementation of asset management improvement program,
Phase 2	<ul style="list-style-type: none"> • asset management plan development and implementation, • reviews of data accuracy, levels of service and systems plan development,
Phase 3	<ul style="list-style-type: none"> • asset management plan operation • evaluation and monitoring of asset management plan outputs • ongoing asset management plans review and continuous improvement.

The current position of Shoalhaven Water asset management team is.

Section Manager – Robert Horner

Unit Manager – Matthew Kidd

Asset Data Coordinator – Christopher Dougherty

Communications Site Coordinator – Fiona Bowman

Electrical Site Coordinator – Greg Baker

Asset Officer – Jordan Alcorn

GIS Consultant – Emma McIntyre

4.7 Financial & Asset Management Core Competencies

The National Frameworks on Asset Planning and Management and Financial Planning and Reporting define 10 elements. 11 core competencies have been developed from these elements⁸ to assess 'core' competency under the National Frameworks. The core competencies are:

Financial Planning and Reporting

- Strategic Longer-Term Plan
- Annual Budget
- Annual report

Asset Planning and Management

- Asset Management Policy
- Asset Management Strategy
- Asset Management Plan
- Governance & Management
- Levels of Service
- Data & Systems
- Skills & processes
- Evaluation

Shoalhaven Water maturity assessment for the core competencies is detailed in Appendix A and summarised in on page 2. The current maturity level is shown by the blue bars. The maturity gap to be overcome for Shoalhaven Water to achieve a core financial and asset management competency is shown by the red bars.

⁸ Asset Planning and Management Element 2 *Asset Management Strategy and Plans* divided into Asset Management Strategy and Asset Management Plans competencies.

Figure 4-6 Core Asset Management Maturity

Core Maturity Assessment

The Core Maturity Histogram shows the Current maturity for each maturity element as assessed by the organisation compared to the 'core' competencies (level 3) required under the Australian National Assessment Framework (NAF).

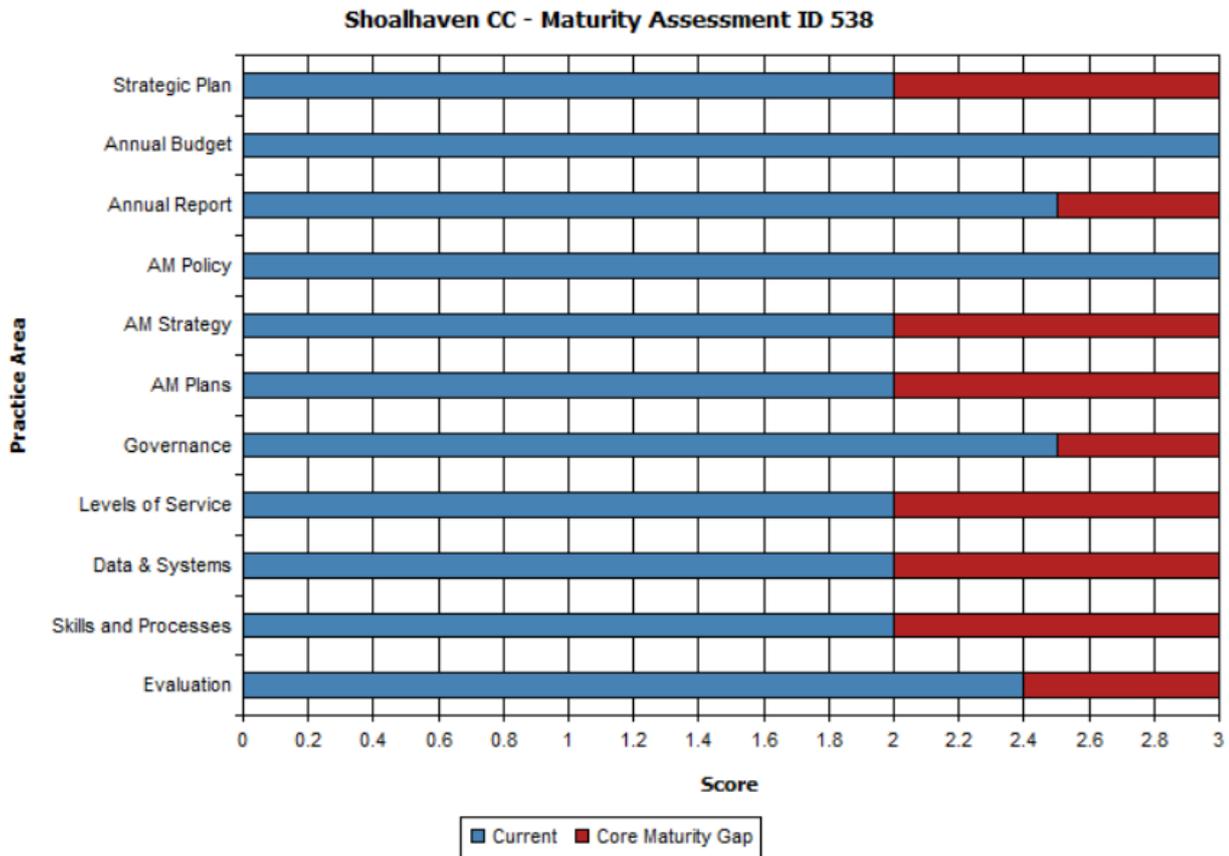


Table 4-6 Shoalhaven Water Asset Management Improvement Plan

ID	Project Number	Task Name	Start	Finish	Resource Names	% Complete	Priority	Notes
1	SWR 120.02	Asset Management Strategy	Wed 29/03/17	Thu 20/12/18	RH[20%],MK	100%	3	Estimated cost \$20 to \$40k
2	SWR 130.02	Critical Customer Engagement	Thu 11/05/17	Thu 19/12/19	Tony Holmes	35%	2	Timeline October to December 2019. Investigation into a system of a
3	SWR 140.01	Levels of Service Frame work	Wed 29/03/17	Wed 29/03/17		100%	3	
4	SWR 210.01	Manufactures Life Cycle costs	Wed 09/09/20	Tue 01/12/20	RH[10%],MK[20%],CD[50%],Asset c	35%	2	Considered as part of REMS 3.1 tender
5	SWR 210.04	Asset Valuation	Tue 08/11/16	Fri 30/11/18	CD[80%],MK[20%],DH[70%]	75%	1	Valuation project is part of Condition, Componentisation project bein
6	SWR 220.02	Capital works Portfolio	Mon 29/01/18	Fri 01/04/22	MK[30%],CS	19%	3	Priority listing being put forward for Panel, and Pump replacement...
7	SWR 310.01	O & M Renewals Program	Wed 29/03/17	Tue 01/06/21	MK[10%],RH[10%],AM,IW,CS,AL	8%	1	Should this item be included in Capital works program plan as renewe
8	SWR 320.01A	Sewer & Water AMPs	Wed 29/03/17	Wed 29/03/17	MK[20%],CD[20%]	100%	1	Final versions completed - Annually updated
9	SWR 320.03	AMP's - Towers/Buildings/Other	Wed 29/03/17	Thu 20/12/18	FB[80%],MK[20%]	100%	1	Towers Plan to be updated within 12 months of new council...
10	SWR 320.04	Water & Sewer Stories - Communicate services to stakeholders	Wed 02/01/19	Thu 02/01/20	TH,MM	10%	3	TH...
11	SWR 420.02A	National Codes of Practice - WSA	Mon 02/01/17	Tue 01/06/21	IW[20%],MK[20%],GB[20%]	100%	3	Current projects - Condition Assessment Guidelines - Civil Assets - MK
12	SWR 430.02	Recycled Water Quality Management Plan	Wed 29/03/17	Wed 29/03/17		100%	1	
13	SWR 430.03	Accessibility to Information Improvement	Wed 29/03/17	Sun 04/04/21	MK[20%],CD[20%],MJ[20%],IW[20%	30%	3	
14	SWR 430.05	Capital Handover Acceptance Policy/Procedure	Sun 29/07/18	Thu 28/02/19	MK,IW,MJ,PR,AL	40%	1	WSAA project handover project complete and accepted for large projects + \$100K...
15	SWR 430.06	Asset information Transfer & Recognition Procedure	Wed 23/08/17	Sun 30/09/18	MK[10%],CD[40%],EM[20%]	80%	1	Asset handover procedures and forms in progress and implemented as part of capital portfolio and program management
16	SWR 440.01	Project Management Framework	Thu 24/05/18	Fri 12/06/20	RH,MK,CK,DB,JB,CS	5%	3	project management framework part of corporate system improvem
17	SWR 440.02	Customer Service Water Manual with Work Order Priority Schedule - CRM	Mon 24/09/18	Sat 31/10/20	Tony Holmes ,MM	0%	3	Part of Corporate system improvement ...
18	SWR 440.03	Contractor Review	Wed 29/03/17	Tue 04/12/18	MK[50%],CD[50%]	100%	3	Contractor details now included in AMS ...
19	SWR 510.01	Asset Conditon Assessment Program (above ground assets)	Tue 01/11/16	Wed 01/05/19	CD[80%],MK[20%]	60%	1	This is now ongoing task using collector and other mobile apps
20	SWR 530.02	Incident Investigation Criteria	Wed 01/03/17	Fri 27/12/19	CD[20%],MK[20%],AM[10%],IW[10%	10%	3	Mobile application set up for sewer main break and AC main break in
21	SWR620.01	Tactical Risk Identification, Analysis Register and Action	Thu 24/05/18	Thu 05/09/19	CK,RH	60%	2	Risk management - section 9 AMP's Corporate risk reviewed annually and review undertaken as part of Techone Implementation
22	SWR 630.01A	Operations Cricallity Implementation	Wed 29/03/17	Sun 12/09/21	AM,IW,MJ	0%	2	See recommendations if Asset Criticality Framework and Management Strategy.
23	SWR 640.01	WSAA Benchmarking	Fri 29/03/19	Thu 12/09/19	MK,RH	100%	4	Customer perception survey lead by TH completed and outcomes bei
24	SWR 740.02	AM internal Communication Strategy	Wed 01/06/16	Sun 14/10/18	FB	85%	3	Not yet started
25	SWR 810.02	Prioritisation of CCTV	Tue 26/09/17	Wed 31/10/18	MK[20%],CD[20%],IW[20%]	80%	2	
26	SW820.03	Data Remediation	Wed 01/06/16	Fri 30/11/18	CD[20%],EM[40%],DK[40%]	0%	1	
27	SW820.04	Complex Asset Componentisation	Tue 01/11/16	Wed 30/01/19	CD,DH,MK	45%	1	Part of valuation project currently underway with GHD
28	SW 830.01	History Life Cycle costs	Sun 01/07/18	Wed 03/03/21	CD,MK,RH	5%	4	
29	SW830.03	Mech Elect Program and Asset Ir	Wed 29/03/17	Sun 22/12/19	GB,MK[10%]	20%	3	Infor being collected as part of Componetisation project
30	SW910.01A	AMS Post migration review			CD,DK,EM,MK	0%	1	
31	SW930.01A	AMS Integration			CD,DK,EM,MK	0%	2	
32	SW 940.01A	Mobile asset tracking	Mon 29/03/21	Tue 06/04/21	AM,IW,MJ,RH,AL	30%	3	Currently developing process for management of Pressure sewer pun
33	SW 950.01	Failure mode prediction models	Mon 24/09/18	Mon 24/09/18	MK,CD	100%	2	Failure mode for 225 + UPVC mains undertaken...
34	2018 AMS Aud	Hydrant Criticality Review	Tue 24/07/18	Mon 24/09/18	CD,MK	100%	1	Criticality Audit Complete - Recommendation to Sept AMSC meeting
35	2018 AMS Aud	Asset Strategy Self Audit	Tue 24/07/18	Wed 24/07/19	MK,MJ,IW	100%	500	Audit updated in AMP's
36	2018 AMS Aud	Annual Asset Strategy Audit	Tue 24/07/18	Tue 24/09/19	MK,MJ,IW	10%	500	Annual Audit in Ongoing actions
37	2018 AMS Aud	SS7 Reporting	Tue 24/07/18	Tue 24/09/19	MK KJ	100%	500	Formula used updated and figures update based on components

4.8 Levels of Service

Levels of Service are defined standards to facilitate the strategic goals and expectations of both Council and the Community, in a technical meaningful manner. In its basic sense, the development of Levels of Service involves the identification the desired outcomes of all stakeholders and defining such outcomes in asset measures such as quality, quantity, reliability, cost and the like. Shoalhaven Water's Customer Service Plan articulates Shoalhaven Water's responsibilities for providing this essential function in a sustainable way, the minimal levels of service customers can expect and our performance as a water utility for ease of comparison of the customer experience against industry wide benchmarks.

Levels of Service, in an asset management environment, relate to the physical asset and associated activities. As such Levels of Service provide significant influence on all asset management decisions.

Considerable effort has been invested by Council to establish Levels of Service for key corporate activities, to align with information collated through Community consultation.

4.9 Strategy Outlook

The organisation can maintain current service levels for the next five years at current funding levels. After this further investment will be required as infrastructure ages and operations and maintenance expenses increase. In addition, the risk to the organisation will increase as assets age and reliability reduces with aging infrastructure.

The organisation's current asset management maturity is below 'core' level however, investment is needed to improve information management, lifecycle management, service management & accountability and direction, as the goal is to achieve intermediate level maturity. The main area of improvement is in the integration area, which should be addressed with the current project to upgrade Council IT systems to a new integrated system. This project is expected to commence in mid 2018.

5 Where do we want to be?

5.1 Shoalhaven City Council's Vision, Mission, Goals and Objectives

The Community Strategic Plan sits at the top of the Council planning hierarchy and identifies the community's main priorities for the future and the ways to achieve these goals. Council's vision is set out in the Community Strategic Plan (CSP) as:

“We will work together in the Shoalhaven to foster a safe and attractive community for people to live, work, stay and play; where sustainable growth, development and environmental protection are managed to provide a unique and relaxed lifestyle”

In delivering Council's vision through a 20 year planning horizon for the provision of water supply and sewerage services, Shoalhaven Water's vision is set out in the Shoalhaven Water Community Strategic Business Plan 2015/16. The Shoalhaven Water Customer Service Plan also identifies that ***leading the way towards a bold future can sustain growth and economic development while retaining a lifestyle which is uniquely Shoalhaven, and describes our mission is to “Provide efficient, effective water and wastewater services to the Shoalhaven”.***

Shoalhaven Water’s vision, mission and values are presented in the Strategic Business Plan (SBP) 2015/16 (D15/135927) as follows:

Vision:

Defined by our spectacular beaches, surrounding natural forests and lakes, Shoalhaven Water connects distinct communities with water supply and sewerage services. Our Vision is “Through our Business Excellence, we will be a leader in the Water Industry”.

Mission:

Leading the way towards a bold future that can sustain growth and economic development while retaining a lifestyle which is uniquely Shoalhaven, our Mission is to “Provide efficient, effective water and wastewater services to the Shoalhaven”.

Values:

Our strategic decisions and day to day activities in achieving our Vision and Mission will be guided by the following organisational values;

Our Customer

Striving to understand and exceed customer expectation and satisfaction with an emphasis on quality service, consultation and continuous improvement.

Our Business

Provision of efficient and effective water and wastewater services, to an agreed “Levels of Customer Service” in an equitable and commercial manner.

Our Environment

Operating Shoalhaven Water in an environmentally responsible and sustainable manner for the betterment of present and future generations.

Our Community

Ensure quality of life and health to our community.

Our Team

Providing the Shoalhaven with efficient, dedicated and enthusiastic staff by working through trust, learning and communication.

The Strategic Plan sets goals and objectives to be achieved in the planning period. The goals set out where the organisation wants to be. The objectives are the steps needed to get there. Goals and objectives relating to the delivery of services from infrastructure are shown in Table 5-1

Table 5-1 Goals and Objectives for Infrastructure Services

Goals	Objectives
Meeting service delivery needs efficiently and effectively.	Levels of Service (LoS) will be aligned with strategic and legal/regulatory requirements and customers/stakeholders will have an opportunity to contribute towards the development of the LoS,
Integration of asset management with long-term financial planning.	The water and wastewater assets will be operated and maintained to ensure that the Levels of Service are delivered at the most efficient long term cost,
Informed decision-making based on reliable data	Sustainable Water Supply and Sewerage Services Providing Responsible Community Returns

Delivering optimal asset lifecycles	Business Plan in accordance with the Best Practice Management of Water Supply and Sewerage Guidelines
Risk-based approach to decision-making.	Deliver to council an appropriate annual community dividend from the Shoalhaven Water operations

Shoalhaven Water Asset Management Policy defines the Shoalhaven Water vision and service delivery objectives for asset management in accordance with legislative requirements, community needs and affordability.

5.2 Asset Management Policy

Shoalhaven Water Asset Management Policy defines the Shoalhaven Water vision and service delivery objectives for asset management in accordance with the Strategic Plan and applicable legislation.

The asset management strategy is developed to support the asset management policy and is to enable Shoalhaven Water to show:

- how its asset portfolio will meet the affordable service delivery needs of the community into the future,
- enable Shoalhaven Water asset management policies to be achieved, and
- ensure the integration of Shoalhaven Water asset management with its long term strategic plans.

5.3 Asset Management Vision

To ensure the long-term financial sustainability of Shoalhaven Water, it is essential to balance the community's expectations for services with their ability to pay for the infrastructure assets used to provide the services. Maintenance of service levels for infrastructure services requires appropriate investment over the whole of the asset life cycle. To assist in achieving this balance, Shoalhaven Water aspires to:

Develop and maintain asset management governance, skills, process, systems and data in order to provide the level of service the community need at present and in the futures, in the most cost-effective and fit for purpose manner.

In line with the vision, the objectives of the asset management strategy are to:

- ensure that the Shoalhaven Water infrastructure services are provided in an economically optimal way, with the appropriate level of service to residents, visitors and the environment determined by reference to Shoalhaven Water financial sustainability,
- safeguard Shoalhaven Water assets including physical assets and employees by implementing appropriate asset management strategies and appropriate financial resources for those assets,
- adopt the long term financial plan as the basis for all service and budget funding decisions,
- meet legislative requirements for all Shoalhaven Water operations,
- ensure resources and operational capabilities are identified and responsibility for asset management is allocated,
- provide high level oversight of financial and asset management responsibilities through Audit Committee/CEO reporting to Shoalhaven Water on development and implementation of Asset Management Strategy, Asset Management Plan and Long Term Financial Plan.

Strategies to achieve this position are outlined in Section 6.

6 How will we get there?

The Asset Management Strategy proposes strategies to enable the objectives of the Strategic Plan, Asset Management Policy and Asset Management Vision to be achieved.

Table 6-1 Asset Management Strategies

No	Strategy	Desired Outcome	Responsibility
1	Move from Annual Budgeting to Long Term Financial Planning	The long-term implications of Shoalhaven Water services are considered in annual budget deliberations.	SCC Finance Section SW Director
2	Develop Long Term Financial Plan covering 10 years incorporating asset management plan expenditure projections with a sustainable funding position outcome.	Sustainable funding model to provide Shoalhaven Water services.	Program Manager SW
3	Incorporate Year 1 of Long Term Financial Plan revenue and expenditure projections into annual budgets.	Long term financial planning drives budget deliberations.	SW Finance SW Director
4	Review and update asset management plans and long term financial plans after adoption of annual budgets. Communicate any consequence of funding decisions on service levels and service risks.	Shoalhaven Water and the community are aware of changes to service levels and costs arising from budget decisions.	SCC Council
5	Develop and annually review Asset Management Plans covering at least 20 years for all major asset classes (80% of asset value).	Identification of services needed by the community and required funding to optimise 'whole of life' costs.	Unit Manager Assets
6	Ensure Shoalhaven Water decisions are made from accurate and current information in asset registers, on service level performance and costs and 'whole of life' costs.	Improved decision making and greater value for money.	WAPD Manager Unit Manager Assets SCC Finance Accountant
7	Report on Shoalhaven Water resources and operational capability to deliver the services needed by the community in the Annual Report.	Services delivery is matched to available resources and operational capabilities.	SW Director WAPD Manager Unit Manager Assets
8	Ensure responsibilities for asset management are identified and incorporated into staff position descriptions.	Responsibility for asset management is defined.	SW Director Section Managers Unit Managers
9	Ongoing review and development of the Improvement Plan to realise 'Intermediate' maturity for the financial and asset management competencies within 2 years.	Improved financial and asset management capacity within Shoalhaven Water.	WAPD Manager Unit Manager Assets
10	Report six monthly to Shoalhaven Water Asset Management Steering Committee on development and implementation of Asset Management Strategy, AM Plans Asset Management Improvement Plan and Long Term Financial Plans.	Oversight of resource allocation and performance.	WAPD Manager Unit Manager Assets.

6.1 Asset Management Objectives

Shoalhaven Water's overall objectives of asset management system is to deliver water supply, wastewater and communications services to our stakeholders in the most cost effective and efficient manner over the whole life cycle of those assets.

6.2 Asset Management Plans

Shoalhaven Water has developed Asset Management Plans for Water Supply, Wastewater Services and Communications Facilities to cover the major assets under its control. The plans have been developed to provide a sustainable approach to the management of those assets (and the services provided by those assets) for the Shoalhaven LGA. The AMP's are prepared under the umbrella of Council's Community Strategic Plan and its vision, mission, objectives and strategies. The AMP's are a support document to Council's Delivery Program and Operations Plan and complements the overall Shoalhaven Water Strategic Business Plan to ensure that the facilities are provided within economic, environmental and social sustainable criteria. This Strategy was developed to support those plans and provide a framework to support the development and management of those assets into the future.

The water and wastewater asset management plans have been developed over the past 10 years with the current plans redrafted in 2014 to align with the IIMM. These plans were publicly advertised before being endorsed by Council in 2015. The Communications Facilities plans is currently being revised to align with the water and wastewater plans and is expected to be finalised and reported to Council in late 2018.

Once finalised and endorsed by Council the plans considered live documents that are updated annually with the latest financial information and any other changes identified by the Asset Management Steering Committee during that year.

7 Asset Management Improvement Plan

The tasks required to achieve a 'core' financial and asset management maturity are shown in priority order in table 6-1. This plan is identified items are identified as KPI's for senior management within Shoalhaven and the Improvement Plan is a standing item on the Asset Management Steering Committee agenda to ensure these matters are reviewed and address to improve Shoalhaven Water's asset management competencies. The resource owners identified in the list below are the responsible parties for ensuring these projects are completed within the timelines identified. The plan is identified on an annual basis to ensure it is relevant, up to date and consistent with Shoalhaven Water's asset management goals and objectives.

Table 7-2 Asset Management Improvement Plan (Oct 18)

ID	Project Number	Task Name	Start	Finish	Resource Names	% Complete	Priority	Notes
1	SWR 120.02	Asset Management Strategy	Wed 29/03/17	Thu 20/12/18	RH[20%],MK	100%	3	Estimated cost \$20 to \$40k
2	SWR 130.02	Critical Customer Engagement	Thu 11/05/17	Thu 19/12/19	Tony Holmes	35%	2	Timeline October to December 2019. Investigation into a system of a
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7	SWR 310.01	O & M Renewals Program	Wed 29/03/17	Tue 01/06/21	MK[10%],RH[10%],AM,IW,CS,AL	8%	1	Should this item be included in Capital works program plan as renewe
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10	SWR 320.04	Water & Sewer Stories - Communicate services to stakeholders	Wed 02/01/19	Thu 02/01/20	TH,MM	10%	3	TH...
11	SWR 420.02A	National Codes of Practice - WSA	Mon 02/01/17	Tue 01/06/21	IW[20%],MK[20%],GB[20%]	100%	3	Current projects - Condition Assessment Guidelines - Civil Assets - MK
12	SWR 430.02	Recycled Water Quality Management Plan	Wed 29/03/17	Wed 29/03/17		100%	1	
13	SWR 430.03	Accessibility to Information Improvement	Wed 29/03/17	Sun 04/04/21	MK[20%],CD[20%],MJ[20%],IW[20%	30%	3	
14	SWR 430.05	Capital Handover Acceptance Policy/Procedure	Sun 29/07/18	Thu 28/02/19	MK,IW,MJ,PR,AL	40%	1	WSAA project handover project complete and accepted for large projects + \$100K...
15	SWR 430.06	Asset information Transfer & Recognition Procedure	Wed 23/08/17	Sun 30/09/18	MK[10%],CD[40%],EM[20%]	80%	1	Asset handover procedures and forms in progress and implemented as part of capital portfolio and program management
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18	SWR 440.03	Contractor Review	Wed 29/03/17	Tue 04/12/18	MK[50%],CD[50%]	100%	3	Contractor details now included in AMS ...
19	SWR 510.01	Asset Conditon Assessment Program (above ground assets	Tue 01/11/16	Wed 01/05/19	CD[80%],MK[20%]	60%	1	This is now ongoing task using collector and other mobile apps
20	SWR 530.02	Incident Investigation Criteria	Wed 01/03/17	Fri 27/12/19	CD[20%],MK[20%],AM[10%],IW[10	10%	3	Mobile application set up for sewer main break and AC main break in
21	SWR620.01	Tactical Risk Identification, Analysis Register and Action	Thu 24/05/18	Thu 05/09/19	CK,RH	60%	2	Risk management - section 9 AMP's Corporate risk reviewed annually and review undertaken as part of Techone Implementation
22	SWR 630.01A	Operations Cricallity Implementation	Wed 29/03/17	Sun 12/09/21	AM,IW,MJ	0%	2	See recommendations if Asset Criticality Framework and Management Strategy.
23	SWR 640.01	WSAA Benchmarking	Fri 29/03/19	Thu 12/09/19	MK,RH	100%	4	Customer perception survey lead by TH completed and outcomes bei
24	SWR 740.02	AM internal Communication Strategy	Wed 01/06/16	Sun 14/10/18	FB	85%	3	Not yet started
25	SWR 810.02	Prioritisation of CCTV	Tue 26/09/17	Wed 31/10/18	MK[20%],CD[20%],IW[20%]	80%	2	
26	SW820.03	Data Remediation	Wed 01/06/16	Fri 30/11/18	CD[20%],EM[40%],DK[40%]	0%	1	
27	SW820.04	Complex Asset Componentisatio	Tue 01/11/16	Wed 30/01/19	CD,DH,MK	45%	1	Part of valuation project currently underway with GHD
28	SW 830.01	History Life Cycle costs	Sun 01/07/18	Wed 03/03/21	CD,MK,RH	5%	4	
29	SW830.03	Mech Elect Program and Asset Ir	Wed 29/03/17	Sun 22/12/19	GB,MK[10%]	20%	3	Infor being collected as part of Componetisation project
30	SWR 910.01A	AMS Post migration review			CD,DK,EM,MK	0%	1	
31	SW930.01A	AMS Integration			CD,DK,EM,MK	0%	2	
32	SW 940.01A	Mobile asset tracking	Mon 29/03/21	Tue 06/04/21	AM,IW,MJ,RH,AL	30%	3	Currently developing process for management of Pressure sewer pun
33	SW 950.01	Failure mode prediction models	Mon 24/09/18	Mon 24/09/18	MK,CD	100%	2	Failure mode for 225 + UPVC mains undertaken...
34	2018 AMS Aud	Hydrant Criticality Review	Tue 24/07/18	Mon 24/09/18	CD,MK	100%	1	Criticality Audit Complete - Recommendation to Sept AMSC meeting
35	2018 AMS Aud	Asset Strategy Self Audit	Tue 24/07/18	Wed 24/07/19	MK,MJ,IW	100%	500	Audit updated in AMP's
36	2018 AMS Aud	Annual Asset Strategy Audit	Tue 24/07/18	Tue 24/09/19	MK,MJ,IW	10%	500	Annual Audit in Ongoing actions
37	2018 AMS Aud	SS7 Reporting	Tue 24/07/18	Tue 24/09/19	MK KJ	100%	500	Formula used updated and figures update based on components

Appendix A Asset Management Maturity Assessment (March 2018)

Framework	Financial Planning & Reporting			Likelihood	Current Risk	Target Risk
Element	Strategic Longer Term Plan			Consequence	Likely	Rare
Practice Area	Strategic Longer Term Plan			Risk Score	Major	Minor
Current Score	2	Core Target	3		High	Low
			Advanced Target	4		
Core Maturity Assessment			Well Progressed			

Question: Does your council have an adopted strategic longer term plan?

Observations of Current Maturity Level

Implications of Current Maturity Level

Recommendations

Maturity Score	Result	Characteristic
5	○	Optimum life cycle costs are known and supported by high levels of data, information and knowledge in all key areas. Political decisions are informed by multiple service level / cost / funding model data, information and knowledge on tradeoffs for economic, social, cultural and environmental consequences.
4	◐	The asset custodian has a Strategic Longer Term Plan (ideally 20 years - at least 10 years) that incorporates a vision, mission, values and long term service outcomes that reflects how the asset custodian plans to provide for community needs.
4	◑	The development of the Strategic Longer Term Plan included community engagement and reflects community/customer needs.
4	●	The asset custodian has a sustainable Long Term Financial Plan (ideally 20 years - at least 10years) which establishes its prudential limits on debt, revenue raising, reserve funding, asset management funding and capital works to support its Long Term Plan.
4	◐	The asset custodian 's Long Term Financial Plan is directly aligned with its Service Plans.
4	●	The Long Term Financial Plan clearly separates 'recurrent expenditure' under the categories of operations and maintenance and clearly separates 'capital works expenditure' under the categories of renewal, upgrade and new.
4	◑	The Long Term Financial Plan clearly identifies the ongoing maintenance, operational and renewal impacts arising from capital works and contributed assets.
4	◐	The Strategic Longer Term Plan includes a current position statement and discussion
4	◑	The Strategic Longer Term Plan includes strategies for achieving objectives
3	●	The asset custodian has a Strategic Longer Term Plan (planning horizon of at least 5 years) that incorporates a vision, strategic outcomes, mission, values and service outcomes that The asset custodian wants to achieve.

- 3 The development of the Strategic Longer Term Plan included community consultation and reflects community needs.
- 3 The Strategic Longer Term Plan incorporates priorities and performance measures and indicates how they will be monitored and measured.
- 3 The asset custodian has a sustainable Long Term Financial Plan covering the period of the Strategic Longer Term Plan (at least 5 year) supporting the implementation of its Longer Term Plan.
- 3 The Long Term Financial Plan has been prepared based on the resource requirements and strategic objectives detailed in The asset custodian 's Long Term Plan and Asset Management Plans.
- 2 Plan covers 4 year term of the asset custodian's forward work program.
- 2 Draft Strategic Plan is advertised for public comment
- 2 Plan reflects needs of community for foreseeable period
- 2 Plan includes vision and strategic objectives
- 2 Plan details what the asset custodian intends to do in period of plan
- 1 Plan covers 1 year period

Framework Element Practice Area	Financial Planning & Reporting Annual Budget Annual Budget					Likelihood	Current Risk	Target Risk
Current Score	3.5	Core Target	3	Advanced Target	4	Consequence	Possible Major	Rare Minor

Core Maturity Assessment **Meets Requirements**

Question: Does your council prepare an annual budget?

Observations of Current Maturity Level

Implications of Current Maturity Level

Recommendations

Maturity Score	Result	Characteristic
5	<input checked="" type="radio"/>	Budget contains indicators of achieving the asset custodian 's strategic objectives
4	<input type="radio"/>	The Annual Budget financial ratios (liquidity, debt, underlying operating position) align with the asset custodian 's Long Term Financial Plan.
4	<input type="radio"/>	The Annual Budget clearly indicates the ongoing maintenance, operational and renewal impacts arising from capital works and contributed assets.
4	<input type="radio"/>	The Annual Budget contains estimates of revenue and expenditure with an explanation of the assumptions and methodologies underpinning the estimates, an explanation of the financial performance and position of the asset custodian and has been prepared based on the resource requirements and strategic objectives detailed in the asset custodian 's Strategic Longer Term Plan, Asset Management Plans and Long Term Financial Plan.
4	<input checked="" type="radio"/>	The Annual Budget is prepared based on 'service levels' as reflected in the Strategic Longer Term Plan and contains indicators and measures to assess performance against achieving the asset custodian 's strategic objectives.
3	<input type="radio"/>	The Annual Budget reflects the asset custodian 's strategic objectives and contains a statement of how the asset custodian will meet the goals and objectives of its Strategic Longer Term Plan.
3	<input type="radio"/>	The Annual Budget aligns with Year 1 of the Long Term Financial Plan, and was adopted following community consultation.
3	<input type="radio"/>	The Annual Budget clearly separates 'recurrent expenditure' under the categories of operations and maintenance and clearly separates 'capital works expenditure' under the categories of renewal, upgrade and new.
3	<input checked="" type="radio"/>	The asset custodian 's Annual Budget includes resources to implement Strategic Longer Term Plan strategies.
2	<input type="radio"/>	Budget is publically available and readily accessible to all interested readers
2	<input type="radio"/>	Budget contains estimates of revenue and expenditure for year

- 2 ● Budget includes an explanation of the asset custodian 's financial position and performance
- 2 ● Budget is adopted after public advertising and consideration of comments received
- 1 ● Annual budget is available to those who ask

Framework: Financial Planning & Reporting
 Element: Annual Report
 Practice Area: Annual Report

	Current Risk	Target Risk
Likelihood	Likely	Rare
Consequence	Major	Minor
Risk Score	High	Low

Current Score: 2.5 Core Target: 3 Advanced Target: 4

Core Maturity Assessment: Well Progressed

Question: Does your Council publish an annual report?

Observations of Current Maturity Level

Implications of Current Maturity Level

Recommendations

Maturity Score	Result	Characteristic
5	☉	Annual report includes results of Value for Money audit
4	⦿	The Annual Report includes a performance assessment of progress towards achieving the goals and strategic objectives of the Strategic Longer Term Plan.
4	●	The Annual Report includes a statement of actual performance for the year as measured against the Long Term Financial Plan, including reporting on measures of actual financial performance against short and long term financial sustainability indicators.
4	●	The Annual Report distinguishes between 'recurrent expenditure' under the categories of operations and maintenance and 'capital works expenditure' under the categories of renewal, upgrade and new.
4	☉	The Annual Report includes a statement on "State of the Assets" and the financial sustainability of services provided by its infrastructure assets including any proposed adjustment to services/assets to address issues as they arise.
4	⦿	"The asset financial reporting within the Annual Report, is such based on the following:
3	●	The Annual Report includes independently audited financial statements that are prepared on an accrual basis in accordance with applicable statutory financial reporting requirements.
3	●	The Annual Report reviews the performance of the asset custodian against its strategic objectives and explains variations between the budget and actual results and how these variations impact on the Strategic Longer Term Plan.
3	☉	Annual report contains explanation on variations between budget and actual results
3	☉	Annual report is published each year
3	●	Policy guides informed political decisions informed by data, information and knowledge on tradeoffs for economic, social, cultural and environmental consequences

2	●	AM Policy provides a reasonable basis for long-term integrated decision making by the asset custodian and for participative decision making by the community and subsequent accountability to the community about the activities of the asset custodian
2	●	"AM Policy clearly articulates the principles and financial implications upon which decisions relating to assets and their performance will be based.
2	●	AM Policy has organisational context and acknowledges the importance of asset management in supporting services provided by the asset custodian .
2	●	AM Policy identifies the need for The asset custodian reporting to be categorised in terms of operational, maintenance, renewal, upgrade and new expenditure classifications.
1	●	AM Policy includes audit and review procedures, specifies review dates and has a sunset clause.

Framework	Asset Management & Planning			
Element	AM Policy		Likelihood	Current Risk Likely Target Risk Rare
Practice Area	AM Policy		Consequence	Major Minor
			Risk Score	High Low

Current Score 3 Core Target 3 Advanced Target 5

Core Maturity Assessment **Meets Requirements**

Question: Does your council have an adopted asset management policy?

Observations of Current Maturity Level

SCC has AM policy which is adopted by Council. As SW works under different legislation a separate AMP has been developed by SW which has not been taken to Council however it has been accepted by AM steering committee.

Implications of Current Maturity Level

Recommendations

Maturity Score	Result	Characteristic
5	⦿	The asset custodian has an adopted Asset Management Policy which defines the asset custodian 's vision and service delivery objectives for asset management.
4	●	AM Policy has a direct linkage with the asset custodian 's Strategic Longer Term Plan and Long Term Financial Plan.
4	◐	AM Policy requires the adoption of Asset Management Plans informed by community consultation and applicable financial reporting frameworks.
4	●	AM Policy defines asset management roles, responsibilities and reporting framework.
4	●	AM Policy identifies a process for meeting training needs in financial and asset management practices for the asset custodian's executive and operational staff.
4	●	AM Policy adopted by the asset custodian's executive.
3	●	AM Policy in place but not adopted by the asset custodian OR some awareness by the asset custodian of asset management policy elements and asset

- management principles.
- 3 ● Strategy includes analysis of cost/benefit options for service delivery
- 3 ● Strategy drives asset management planning and service delivery aligned with ISO 55000
- 3 ● Planning for new assets and the upgrade of assets is driven by the asset custodian 's Strategic Longer Term Plan, Service Plans and Asset Management Plans.
- 3 ◎ Strategy details out how the asset custodian achieves set service level and risk management goals including comparison with current situation and proposed future to highlight where strategies will need to be developed to cater for any changes
- 2 ● Strategy details service level and risk management goals.
- 1 ● The asset custodian has an Asset Management Strategy which shows how the asset portfolio can meet the service delivery needs of customers and defines the future vision of asset management practices.

Framework	Asset Management & Planning			Likelihood	Current Risk	Target Risk
Element	AM Strategy			Consequence	Likely	Rare
Practice Area	AM Strategy			Risk Score	Major	Minor
Current Score	2	Core Target	3		High	Low
		Advanced Target	4			
Core Maturity Assessment			Well Progressed			

Question: Does your council have an adopted asset management strategy?

Observations of Current Maturity Level

Implications of Current Maturity Level

Recommendations

Maturity Score	Result	Characteristic
5	○	The asset custodian's Asset Management Strategy is linked to the Asset Management Policy and integrated into the Strategic Longer Term planning and annual budgeting processes.
5	⊙	The asset custodian's Asset Management Strategy documents the current status of asset management practices (processes, asset data and information systems) and what actions must be taken to implement the Asset Management Policy, including resource requirements, timeframes and accountabilities.
4	⊙	Strategy shows what assets the asset custodian has under its control.
4	⊙	Strategy implements the service level and risk goals set out the asset custodian's strategic plans aligned with ISO 55000.
4	⊙	Draft AM Strategy Prepared but not adopted.
3	⊙	AM Strategy & AMP provide optimum value for defined service using scenarios to inform service performance. Multiple scenarios to show best value options.
3	⊙	Planning for new and upgraded assets driven by Asset Management Strategy and AMP. Highly responsive to policy direction with scenarios showing cumulative consequences of decision scenarios.
3	⊙	Asset Management Plans include future demand projections and forecasts based on population and demographic projections.
2	⊙	Asset Management Plans are influenced by the level of community enquiry – feedback on customer levels of service.
2	⊙	Asset Management Plans include the financial requirements to meet target levels of service levels for at least the next 10 years for each asset class and are correlated with the data in the Long Term Financial Plan.
1	⊙	Asset Management Plans include a process for optimising decisions to obtain the best value outcome for defined levels of service and risk utilising scenario modelling and tradeoffs.

Framework **Asset Management & Planning**
 Element **AM Plans**
 Practice Area **AM Plans**

	Current Risk	Target Risk
Likelihood	Likely	Rare
Consequence	Major	Minor
Risk Score	High	Low

Current Score **2** Core Target **3** Advanced Target **5**

Core Maturity Assessment **Well Progressed**

Question: Does your council have adopted asset management plans?

Observations of Current Maturity Level

Water and sewer plans are detailed and up to date however Towers AMP needs to be updated.

Implications of Current Maturity Level

Recommendations

Updated Towers Plan within 6 months.

Maturity Score	Result	Characteristic
5	🎯	AMPs include Infrastructure Risk Management Plan
4	🎯	AMPS adopted by the asset custodian for all significant asset groups in a consistent format in accordance with industry best practice (E.g. International Infrastructure Management Manual (IIMM)) and are available to all relevant staff across the organisation.
4	●	AMPs define which asset groups are covered by each Plan in accordance with a clearly documented Infrastructure asset hierarchy.
4	🎯	AMPS cover at least 10 years and
4	🎯	a. Refer to the asset custodian 's Asset Management Policy and Asset Management Strategy;
4	○	b. Include all assets and document asset inventory information for the asset group/category as recorded in the asset register;
4	🎯	c. Document the asset hierarchy within each asset group;
3	●	d. Document the current condition function capacity and use of assets;
3	●	e. Document the adopted useful lives of assets;
3	●	f. Include risk assessment and criticality profiles;
3	●	g. Provide information about assets, including particular actions and costs to provide a defined (current and/or target) level of service in the most cost effective manner
3	●	h. Include demand management forecasts;
3	🎯	i. Address life cycle costs of assets;

- 3 j. Include forward programs identifying cash flow forecasts projected for:
- 3 i. Asset Renewals;
- 3 ii. New Assets and Upgrades of existing assets;
- 3 k. Address asset performance and use measures and associated targets as linked to levels of service;
- 3 iii. Maintenance expenditure;
- 3 iv. Operational expenditure (including depreciation expense);
- 3 The Annual Report includes details of any major changes in functions of the asset custodian, organisation structure and/or policy initiatives and how these changes might impact on The asset custodian 's Strategic Longer Term Plan.
- 3 "In relation to the financial reporting framework in the Annual Report, the Annual Report addresses the following issues in accordance with relevant statutory policies, Accounting Standards and other best practice guidelines:
- 3 Annual report contains audited financial statements
- 3 Annual report is widely available to the general public
- 3 Annual report reports on the asset custodian 's operations for the year in terms of goals and objectives for preceding year
- 3 l. Include an asset consolidation and disposal program; and
- 3 m. Include an asset management improvement plan.
- 3 n. Include consideration of non-asset service delivery solutions (leasing private/public partnerships)
- 3 o. Identify changes in service potential of assets through projections of asset replacement costs, depreciated replacement cost and depreciation expense.
- 3 AMPs link to the asset custodian 's AM Policy, AM Strategy, Strategic Longer Term Plan, Long Term Financial Plan and other relevant policy objectives.
- 3 The Annual Report complies with all statutory requirements including publication by the due date and is made widely available to the public.
- 3 AMPs have all been prepared in association with customer/community consultation.
- 3 Separate AMP's for each asset group - high level overall framework but not consistent
- 2 AMP's in place but not regularly reviewed or adopted
- 2 AMPs include all assets on asset register
- 2 AMPs Include an improvement plan
- 2 Reactive and fragmented

1



Common purpose and focus on service delivery with agreed nexus between funding and service level and risk outcomes.

Framework **Asset Management & Planning**
 Element **Governance and Management**
 Practice Area **Governance and Management**

	Current Risk	Target Risk
Likelihood	Possible	Rare
Consequence	Major	Minor
Risk Score	High	Low

Current Score **2.5** Core Target **3** Advanced Target **4**

Core Maturity Assessment **Well Progressed**

Question: Does your council have good management practices linking AM to service delivery?

Observations of Current Maturity Level

Implications of Current Maturity Level

Recommendations

Maturity Score	Result	Characteristic
5	⦿	Bottom up and top down feedback on performance with defined measures for service delivery and governance aligned with ISO 55000/01.
5	⦿	Accountability mechanisms are maintained to ensure that the asset custodian's resources are used optimally to implement strategic asset management objectives, as detailed in the Asset Management Strategy and Asset Management Plans aligned with ISO 55000
4	⦿	The asset custodian uses their Infrastructure Asset Hierarchy as a basis for consistent reporting.
4	⦿	Strategic levels of service and technical levels of service are monitored and reported to the Executive Management Team and key stakeholders .
4	⦿	When considering the annual Capital Works Program, projects are prioritised based on cost/benefit assessments (including risk) with resource implications reflected into the Long Term Financial Plan.
4	⦿	Key decision makers are provided with an annual 'State of the Assets' report covering asset condition, risk, performance, intervention levels, level of service monitoring and future financial sustainability options and consequences.
4	○	The asset custodian has an Internal Audit Committee or equivalent with competency to understand the risk aspects of advanced asset management and the Internal Audit Committee provides an independent review and annual report on asset risk management performance.
4	⦿	The asset custodian has mechanisms in place to provide high level oversight by the CEO/GM and Executive Management Team, for development and implementation of the Asset Management Strategy and Asset Management Plans.
3	⦿	Roles and responsibilities are clearly defined in a matrix or policy, identifying positions responsible for determining levels of service and positions responsible for managing the assets to meet service delivery needs.
3	⦿	The staff structure and position descriptions clearly define asset management functions, responsibilities and skill requirements for managing all asset classes.
3	⦿	The asset custodian has a documented process for making capital investment decisions, which is driven by the Strategic Longer Term Plan, Long Term Financial Plan and the Service Plan and explicitly details the impacts on the future operations and maintenance budgets, "Whole of Life" costs and risk management assessments.

- 3 The asset custodian involves all its departments in Asset Management.
- 3 The asset custodian has an Asset Management Steering Committee, with cross functional representation and clearly defined and documented terms of reference, focussed on coordinating the linkages between service delivery and asset management implementation.
- 3 There are internal processes to promote Asset Management across The asset custodian
- 3 Multi-disciplinary AM Steering Committee in operation with regular meetings
- 2 AM improvement plan in operation
- 2 Informal AM Steering activities
- 1 Optimum life cycle costs known and supported by high levels of data, information and knowledge in all key areas. Political decisions informed by data, information and knowledge on tradeoffs for economic, social, cultural and environmental consequences.

Framework **Asset Management & Planning**
 Element **Levels of Service**
 Practice Area **Levels of Service**

	Current Risk	Target Risk
Likelihood	Likely	Rare
Consequence	Major	Minor
Risk Score	High	Low

Current Score 2 Core Target 3 Advanced Target 4

Core Maturity Assessment **Well Progressed**

Question: Does your Council have a defined process for determining current and target levels of service and costs?

Observations of Current Maturity Level

Implications of Current Maturity Level

Recommendations

Maturity Score	Result	Characteristic
5	<input type="radio"/>	Documented feedback on long term cumulative impacts of decisions on service levels.
5	<input type="radio"/>	The asset custodian has undertaken the process of identifying the costs associated with each level of service, including the increased cost or decreased cost associated with increasing or decreasing each level of service respectively to assist in scenario modelling.
4	<input type="radio"/>	Target community levels of service are defined through community consultation, considering population and demographic change projections, trend analysis and customer feedback and requests.
4	<input checked="" type="radio"/>	The asset custodian has a communication plan to communicate information on infrastructure service levels and the management of service levels against set targets to internal and external stakeholders.
4	<input checked="" type="radio"/>	The cost of maintenance and operational activities are reported against adopted levels of service.
4	<input checked="" type="radio"/>	The asset custodian , in conjunction with the community, regularly reviews its community levels of service and technical levels of service, to determine the financial impact of a change in service levels. If a change occurs this is then reflected into the Asset Management Plan and Long Term Financial Plan.
4	<input type="radio"/>	The asset custodian has Service Plans for each of its services which have been developed in consultation with the community.
3	<input checked="" type="radio"/>	The asset custodian has undertaken the process of defining, quantifying and documenting current community levels of service and technical levels of service, and costs of providing the current levels of service.
3	<input checked="" type="radio"/>	Service levels are consequences of annual budget allocaton and not defined.
3	<input checked="" type="radio"/>	Annual skills and knowledge audit on capacity and capacity needed to deliver corporate plan with linked service provision plan.
3	<input checked="" type="radio"/>	Current and target levels of service (for both community levels of service and associated technical levels of service) are clearly defined in each Asset Management Plan.

2



Technical levels of service are incorporated into service agreements and/or maintenance, operational and capital renewal procedures.

1



Service levels in some areas - fragmented

Framework **Asset Management & Planning**
 Element **Data & Systems**
 Practice Area **Data & Systems**

	Current Risk	Target Risk
Likelihood	Likely	Rare
Consequence	Major	Minor
Risk Score	High	Low

Current Score 2 Core Target 3 Advanced Target 4

Core Maturity Assessment Partially Meets Requirements

Question: Does Council have the data and systems to perform asset management activities?

Observations of Current Maturity Level

Implications of Current Maturity Level

Recommendations

Maturity Score	Result	Characteristic
5	<input type="radio"/>	Asset data is integrated and responds to required decision support information needed for optimized service delivery
5	<input type="radio"/>	Asset data is available to operations, design and planning staff across services areas when planning and undertaking works.
4	<input checked="" type="radio"/>	Asset renewal funding requirements and funding gaps are determined to achieve the lowest life cycle costs with consideration of the service level and risk tradeoffs.
4	<input checked="" type="radio"/>	Asset Management systems have risk management functionality available to predict criticality of assets, record risk assessments, risk treatment, treatment costs and residual risk.
4	<input checked="" type="radio"/>	The asset custodian records the results of asset condition surveys and defect assessments against individual assets, linked to the componentised inventory in the asset register. Time series condition data is maintained to allow monitoring of asset performance.
4	<input checked="" type="radio"/>	Asset Management systems are able to predict asset life based on various assessment factors and compare actual against predicted deterioration behaviour.
4	<input checked="" type="radio"/>	The asset custodian's Asset Management System can generate works orders based on intervention levels and customer requests which are also linked to the asset register. It has the capacity to monitor completion targets and perform facilities management functions.
4	<input type="radio"/>	The asset custodian 's Asset Management system is integrated with other corporate knowledge systems such as the finance, GIS and property information systems.
4	<input checked="" type="radio"/>	Functionality of the asset custodian 's Asset Management systems includes the ability to generate maintenance and renewal programs based on available budget and future condition profiles, to generate scenario specific cash flow forecasts and to generate optimized programs.
4	<input type="radio"/>	The asset custodian's Asset Management Systems is used to monitor asset performance over time.
4	<input type="radio"/>	The asset custodian has a documented data standards for inclusion in Asset Management systems upon the commissioning of new (and/or modified) assets.

4	<input checked="" type="radio"/>	The asset custodian benchmarks its infrastructure funding gap against relevant industry indicators.
4	<input checked="" type="radio"/>	The asset custodian 's Asset Management System used to manage operations and maintenance functionality is driven by an asset knowledge management strategy, with specific functionality for each service area to monitor operations and maintenance costs and trends.
4	<input type="radio"/>	Data is available and accessible to enable performance measurement and reporting against Key Performance Indicators used to measure levels of service. Processes and information are driven by an asset knowledge management strategy linked to the Asset Management Plans and the Long Term Financial Plan.
4	<input checked="" type="radio"/>	There is a common corporate data framework used across all asset groups, which is defined by The asset custodian's Infrastructure Asset Hierarchy.
4	<input type="radio"/>	The asset custodian has documented repeatable methodologies to carry out consistent asset condition surveys and defect identification assessments, as documented in a Condition Rating Assessment Manual for applicable asset classes.
3	<input checked="" type="radio"/>	The asset custodian 's asset financial reporting functionality is comprehensive and includes audit trails, depreciation calculations, reporting thresholds and records of acquisition and disposal of assets
3	<input checked="" type="radio"/>	The asset custodian 's systems, procedures and processes allow it to benchmark its asset management performance against similar organizations.
3	<input type="radio"/>	Asset Management systems have the functionality to generate maintenance and renewal programs and produce associated cash flow forecasts.
3	<input checked="" type="radio"/>	The asset custodian has defined and documented procedures for determining asset replacement and treatment unit rates, which are then stored in the Asset Management System.
3	<input checked="" type="radio"/>	The asset custodian has a defined process for operations, maintenance, renewal and upgrade planning for its existing assets.
3	<input checked="" type="radio"/>	Skill & knowledge requirements determined
3	<input checked="" type="radio"/>	Audit completed to determine current skill & knowledge levels
3	<input checked="" type="radio"/>	Ad hoc and fragmented approach to data management driven by current projects
2	<input checked="" type="radio"/>	Annual skills and knowledge audit on capacity and capacity needed to deliver corporate plan with linked service provision plan.
2	<input checked="" type="radio"/>	Following each Annual Budget cycle, Asset Management Plans and the Long Term Financial Plan are updated to reflect the current financial position and to maintain alignment between all documents.
1	<input type="radio"/>	The asset custodian has a process which incorporates research into the determination of asset lives based on condition and consumption rates.

Framework

Asset Management & Planning

Current Risk

Target Risk

Element

Skills and Processes

Likelihood

Likely

Rare

Practice Area

Skills and Processes

Consequence

Major

Minor

Risk Score

High

Low

Current Score

2

Core Target

3

Advanced Target

4

Core Maturity Assessment

Partially Meets Requirements

Question:

Does council have the data & systems knowledge to perform asset data management activities?

Observations of Current Maturity Level

Implications of Current Maturity Level

Recommendations

Maturity Score	Result	Characteristic
5	<input checked="" type="radio"/>	The asset custodian has a service rationalisation process linked to a Disposal Policy that identifies any services (and associated assets) that are surplus to future service level needs.
4	<input checked="" type="radio"/>	The asset custodian has a documented process that identifies the outcomes of service delivery reviews for input into Asset Management Plans and the Long Term Financial Plan.
4	<input checked="" type="radio"/>	When undertaking operations and maintenance activities there is a process to allow staff to communicate asset related issues to other service areas.
4	<input checked="" type="radio"/>	There is a process to analyse risks and incorporate risk mitigation strategies into contingency plans within the planning cycle.
4	<input checked="" type="radio"/>	Asset failures and causes of failures are recorded and analysed to identify failure trends and asset group rectification strategies.
4	<input checked="" type="radio"/>	The asset custodian has a process whereby community enquiry and operational response issues are linked to individual assets.
4	<input checked="" type="radio"/>	The asset custodian has an Optimum Decision Making framework to ensure consistent decision making. The Optimum Decision Making framework considers multivariable criteria linked to service and performance standards. There is a shift in emphasis from asset condition to service performance and value.
4	<input checked="" type="radio"/>	Data and systems allow projections which inform a range of service provision scenarios and costs. Adopted scenarios are incorporated into Asset Management Plans and the Long Term Financial Plan with an annual review in line with applicable statutory requirements.
4	<input checked="" type="radio"/>	The asset custodian has a consolidated, integrated, accurate, up to date and complete componentised asset register with the required functionality to ensure security and data integrity, which includes all information about each asset sorted by asset group.
4	<input type="radio"/>	Capital Works are priorities are based on the application of business cases incorporating whole of life costing, risk and benefit quantification and all data used in decision making is documented and recorded.
4	<input checked="" type="radio"/>	Staff are trained in best practice operating and maintenance procedures and activities.
4	<input checked="" type="radio"/>	Contingency plans in place to ensure continuity of activities when staff turnover occurs
4	<input checked="" type="radio"/>	Asset Knowledge Management Strategy identifies data framework requirements
4	<input type="radio"/>	The asset custodian has a process to review and update the Asset Management Strategy on a maximum of a 5 year cycle. The Asset Management Strategy is to be formally adopted by the executive.

- 3 The asset custodian has a process to review and update Asset Management Plans for all asset groups on a maximum of a 3 to 4 year cycle consistent with the asset custodian election cycle. Asset Management Plans are formally adopted by The asset custodian .
- 3 The asset custodian has a process to identify operational risks, assign responsibilities and monitor risk treatment actions all recorded within a risk register.
- 3 The asset custodian has a process to annually review and update the financial forecasts for all asset classes and update the Long Term Financial Plan.
- 3 The asset custodian has assessed the skills and knowledge required to perform asset data management activities, conduct financial reporting valuations and develop Asset Management Plans. The asset custodian has a current asset management skills matrix. Staff training needs have been identified and training scheduled.
- 3 The asset custodian has a defined methodology for assessing the Remaining and Useful Life, Residual Value and Depreciation Method of assets.
- 3 The asset custodian has a process to collect and record asset data into an Asset Management system upon the commissioning of new (and/or modified) assets, including built and contributed assets.
- 3 The asset custodian has formal processes for the handover of assets to asset custodians/owners.
- 3 The asset custodian has a process to communicate the financial implications of the Asset Management Plans to internal and external stakeholders.
- 3 The asset custodian provides ongoing training programs for executive leaders and elected members on key asset management topics.
- 3 Skill & knowledge requirements determined
- 2 Audit completed to determine current skill & knowledge levels
- 2 Documented asset data management procedures
- 2 Ad hoc and fragmented approach to data management driven by current projects
- 1 The asset custodian undertakes an annual audit within the entity to report on trends on ISO 55000 / Triple Bottom Line / Quadruple Bottom Line service delivery and accompanying financial sustainability compared to the Strategic Longer Term Plan.

Framework	Asset Management & Planning				Current Risk	Target Risk			
Element	Evaluation				Likelihood	Likely	Rare		
Practice Area	Evaluation				Consequence	Major	Minor		
Current Score	2.4		Core Target	3	Advanced Target	4	Risk Score	High	Low
Core Maturity Assessment				Well Progressed					

Question: Does council have a process to evaluate progress and use of resources on implementation of the National Frameworks?

Observations of Current Maturity Level

Implications of Current Maturity Level

Recommendations

Maturity Score	Result	Characteristic
5	⊙	Technical levels of service are monitored and performance reported.
5	⊙	Qualitative Key Result Areas (KRA's) are set for Community levels of service. KRA's are monitored, measured and reported to The asset custodian , against time based 'targets'.
4	●	Community levels of service are monitored and performance reported.
4	●	Improvement tasks are included in staff performance plans and reviews
4	⊙	No formal evaluation process
3	●	p. Include consideration of possible effects of climate change on asset useful lives and maintenance costs
3	●	The asset custodian has a documented evaluation process by which asset management improvements are identified, timeframes established, resources allocated, actioned, monitored and reported to the Internal Audit Committee (or equivalent) and the executive.
3	●	Quantitative Key Performance Indicators (KPI's) are set for technical levels of service. KPI's are monitored, measured and reported to the asset custodian against time based 'targets'.
2	●	The asset custodian benchmarks its asset management performance improvement against relevant industry indicators and reports annually on its asset management improvement performance against set targets.
1	⊙	The asset custodian has a documented evaluation process by which asset management improvements are identified, timeframes established, resources allocated, actioned, monitored and reported to the Executive Management Team and/or CEO/GM.

Maturity Assessment Legend

Not Started



Well Progressed



Complete



Part Completed